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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,028	07/21/2005	Emmanuel Legrand	047578/294908	8430
826	7590	12/03/2007	EXAMINER	
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			ALIE, GHASSEM	
		ART UNIT		PAPER NUMBER
		3724		
		MAIL DATE	DELIVERY MODE	
		12/03/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/543,028	LEGRAND, EMMANUEL
	Examiner Ghassem Alie	Art Unit 3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07/21/05.  
 2a) This action is FINAL.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-10 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 21 July 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. 10/543,026.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>07/21/05</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

***Information Disclosure Statement***

1. The information disclosure statement filed on 07/21/05 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. It should be noted that no copy has been provided for the non-patent literature publication as item 28 is the IDS. Item 28 is “Photographs of Kwik Products Inc, Trimmer Head, Date unknown”.

***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the motor set forth in claim 10 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: “1100” in page 6, line 25.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the

remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

4. The disclosure is objected to because of the following informalities: specification does not include section headings. Appropriate correction is required.

5. The disclosure is objected to because of the following informalities:

In page 1, line 24-25; " documents US-A-4 905 468,-----." is no understood.

In page 6, line 26; "This part 110" should be --The part 110--.

It should be noted that in the entire specification "This ..." should be -The ...-. For example, in page 10, line 18; "This part 110c" should also be -The part 110c--.

In page 7, liens 19-20; "in particular when, when" should be in particular, when--.

In page 12, line 5; "three strands" should be --four strands--.

In page 12, lines 12-13; "in the light of" should be --in light of--.

In page 14, line 15; "its outlet opening 115" should be --its inlet opening 115--.

Appropriate correction is required.

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

7. The abstract of the disclosure is objected to because "According to the invention:" should be deleted.

8. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

#### ***Claim Objections***

9. Claims 6 is objected to because of the following informalities: in claim 6, line 3; "its cutting ridge" should be --the cutting ridge of the string--.

#### ***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, "a brush cutter, edge trimmer or similar, of the

“type” renders the scope of the claim indefinite. It is not clear what is considered to be a similar device as “a brush cutter” or “edge trimmer.” This is also applicable to claims 10. Regarding claims 6, “the plants” lacks antecedent basis.

12. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 2 recites the broad recitation that the distance between the two planes is 1.8 times the height of the string, and the claim also recites the distance between the two planes is less than 5 times the height of the string which is the narrower statement of the range/limitation. It should be noted that less than 5 times also includes less than 1.8 times.

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-2, 3-4, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al. (4,905,465), hereinafter Jones '465. Regarding claim 1, as best understood, Jones '465 teaches a cutting head "A" for a brush cutter or a edge trimmer including a plurality of string outlets "F" for a plurality of cutting strings "E". Jones '465 also teaches that the axes of the cutting strings outlets "E" are distributed in at least two planes mutually spaced by a distance greater than 1.8 times the height or thickness of the string 'E". It should be noted that the first top holes 'F" around the rim 'D" are located in a first plane. The last holes "F" at the bottom of the rim "D" are located in a second plane. The distance between the first holes or outlets in the first plane to the last holes or outlets in the second plane is at least greater than 1.8 times the height or thickness of the string. Jones '465 also teaches that each plane the respective string outlets are at the same level, and in that all planes the direction of rotation of the head is the same. See Figs. 1-18 in Jones '465.

Regarding claim 2, as best understood, Jones '465 teaches everything noted above including that the at least two planes are mutually spaced by a distance less than or equal to approximately 5 times the height of each string.

Regarding claims 3-4, Jones '465 teaches everything noted above including that the peripheral direction of the head, the strings existing in a first plane are alternated with the string alternated with the strings exiting in a second plane adjacent to the first. Jones also teaches that the strings exit the head in a regularly distributed manner.

Regarding claim 10, Jones '465 teaches everything noted above including a motor suitable for driving in rotation the cutting head set forth in claim 1.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (5,048,278), hereinafter Jones '278. Regarding claim 1, as best understood, Jones '278 teaches a cutting head 'R" for a brush cutter or an edge trimmer including a plurality of string outlets 52, 54 for a plurality of cutting strings 10. Jones '278 also teaches that the axes of the cutting strings outlets 52, 54 are distributed in at least two planes mutually spaced by a distance greater than the height or thickness of the string 10. It should be noted that the outlet 52 and its opposite outlet 52 is along a plane that is distance from the plane along which the outlet 54 and its opposite outlet 50 are located. Jones '278 also teaches that each plane the respective string outlets are at the same level, and in that all planes the direction of rotation of the head is the same. See Figs. 1-18 in Jones '465. See Figs. 1-6 in Jones '278.

Jones does not explicitly teach that the distance between the planes is greater or equal 1.8 times the height of the string. However, the distance between the planes could be 1.8 times or greater than the thickness of a string which has a lesser height or greater height. In other words, the distance between the places could be 1.8 to 5 times a thin string. In addition, Jones '278 teaches a distance between the planes that appears to be 1.8 times the height of the string, Jones '278 does not positively disclose that the distance between the two planes is 1.8 times or greater than the height of the string. However, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to select the distance between the two planes or the height of the string in a manner that the distance between the two planes is 1.8 times or greater than the height of the string, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 2, as best understood, Jones '278 teaches everything noted above including that the at least two planes are mutually spaced by a distance less than or equal to approximately 5 times the height of each string.

Regarding claims 3-4, Jones '278 teaches everything noted above including that the peripheral direction of the head, the strings existing in a first plane are alternated with the string alternated with the strings exiting in a second plane adjacent to the first. Jones also teaches that the strings exit the head in a regularly distributed manner.

Regarding claims 5-6, Jones '278 teaches everything noted above including that the two strings 10 are provided exiting in a first plane in diametrically opposed regions, and two strings exiting in a second plane adjacent to the first, in diametrically opposed regions also, in the string outlets 52, 54 are distributed approximately 90 degrees in the peripheral direction. Jones '278 also teaches that each string 10 has a ridge, and in that the head includes means 30 for maintaining each string in an orientation such its cutting ridge is in a position to lead the attack on plants. It should be noted that the string 10 three ridges since it has triangular shape. Therefore, one of the ridges is always oriented in a position to lead the attach on plants.

Regarding claim 10, Jones '278 teaches everything noted above including a motor suitable for driving in rotation the cutting head set forth in claim 1.

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones '278 in view of Fogle (5,463,815). Regarding claim 7, Jones '278 teaches everything noted above except that each string is substantially square. However, the use of circular, square, and other shapes of strings is well known in the art such as taught by Fogle. See Figs. 1-8 in Fogle. It would have been obvious to a person of ordinary skill in the art to provide the cutting head of Jones '278 with square-shaped strings, as taught by Fogle, since different shape of strings works the same as clearly taught by Fogle, and one can be substituted for another.

18. Claims 8-9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones '278 in view of Rouse (4,756,146). Regarding claims 8-9, Jones '278 teaches everything noted above except the head is implemented by asserting parts of general disc shape defining string semi-channels opposite one another. It should be noted that Jones '278 teaches that the head is formed from one disc shape part. However, the use of head formed from two disc shape parts is well known in the art such as taught by Rouse. See Figs. 1-4 in Rouse. It would have been obvious to a person of ordinary skill in the art to form the cutting head of Jones '278 from two disk shape parts as an alternative manner that facilitates replacement of the strings.

### *Conclusion*

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mackey (5,398,416), Griffini et al. (5,765,287), Gullett (4,685,279) teach a cutting head for trimming plants.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ghassem Alie  
Patent Examiner  
Art Unit 3724

GA

November 29, 2007